IN THE COURT OF APPEALS OF TENNESSEE AT JACKSON

August 23, 2011 Session

CAROLYN WELLS v. ILLINOIS CENTRAL RAILROAD COMPANY

Appeal from the Circuit Court of Shelby County No. CT-000738-05 John R. McCarroll, Jr., Judge

No. W2010-01223-COA-R3-CV - Filed December 22, 2011

This appeal involves the exclusion of expert testimony. The plaintiff employee filed a lawsuit against the defendant railroad employer pursuant to the Federal Employers' Liability Act, seeking compensation arising out of alleged work-related injuries. The parties took the depositions of two experts for the plaintiff, an ergonomist and her treating orthopedic surgeon. The railroad subsequently filed motions *in limine* to exclude the testimony of the two experts, as well as a motion for summary judgment. The trial court granted the motions *in limine*, excluding the testimony of both experts. It then granted summary judgment in favor of the railroad. The employee appeals the trial court's exclusion of the testimony of her experts. We affirm in part, reverse in part, and remand for further proceedings.

Tenn. R. App. P. 3 Appeal as of Right; Judgment of the Circuit Court is Affirmed in Part, Reversed in Part and Remanded.

HOLLY M. KIRBY, J., delivered the opinion of the Court, in which ALAN E. HIGHERS, P.J., W.S., and J. STEVEN STAFFORD, J., joined.

Stephen R. Leffler, Memphis, Tennessee and H. Chris Christy, Little Rock, Arkansas for Petitioner/Appellant Carolyn Wells.

S. Camille Reifers and Brooks E. Kostakis, Memphis, Tennessee for Defendant/Appellee, Illinois Central Railroad Company.

OPINION

FACTS AND PROCEEDINGS BELOW

Plaintiff /Appellant Carolyn Wells ("Wells"), a high school graduate, began working for Defendant/Appellee Illinois Central Railroad Company ("ICRR") on December 8, 1970, at the age of twenty-six. During her long tenure at ICRR, Wells worked in a variety of primarily clerical positions, including that of a caller, a general foreman's clerk, a trainmaster's clerk, an IBM clerk, a pickle clerk, and a van driver. She eventually became a demurrage clerk and supervisor, and worked in this position from 1995 to 2004. In January 2004, Wells was diagnosed with bilateral carpal tunnel syndrome. She retired from ICRR on April 1, 2004.

On February 9, 2005, Wells filed the instant lawsuit against ICRR in the Circuit Court of Shelby County, Tennessee, under the Federal Employers' Liability Act ("FELA"). Wells claimed that ICRR negligently caused her carpal tunnel syndrome. ICRR filed an answer denying liability and asserting several affirmative defenses. Discovery ensued.

In the course of discovery, Wells was deposed. In her deposition, Wells described her duties as a demurrage clerk in some detail. She placed percentage estimates on the time she spent doing tasks such as telephone work, filing, clerical tasks on the computer, and monthly reports. Wells described her medical history, including several past surgeries. She also testified about her non-work activities, chores, and hobbies.

On August 18, 2009, ICRR filed a motion for summary judgment, alleging that Wells was unable to present admissible expert evidence establishing causation. The motion was denied initially, and discovery continued.

The discovery included the deposition of David Haueisen, M.D. ("Dr. Haueisen"), an orthopedic surgeon and hand specialist who treated Wells. Dr. Haueisen testified that, in general, he relies on the patient to give him a truthful and accurate medical history, and then uses that history to diagnose and treat the patient. Dr. Haueisen first began treating Wells on January 26, 2004, when Wells was 59 years old and had worked for the railroad 34 years. When Dr. Haueisen first began treating Wells, her symptoms included numbness and tingling in both hands and an occasional inability to pick up things. In taking Wells' medical history, Dr. Haueisen said, they "talked a little bit about" her clerical activities, which included typing, writing, and telephone work for eight hours a day, five days a week. He noted that

¹Wells was later permitted to amend her complaint to allege cubital tunnel syndrome as well.

Wells told him her symptoms worsened with typing. Dr. Haueisen was questioned at length about the medical history that was taken:

Q: If [Wells'] summary of her job duties and her history that she gave you were inaccurate or untruthful, would that affect your opinion in this case?

A: Well, I didn't take much of a history –

Objection: Object as to speculation. You can answer that, if you can.

A: Again, I didn't take a real detailed job history, because my charge is to really find out what their problem is and what the medical condition is, not, you know, everything they've ever done. But as far as I was aware, her history was fairly accurate in that she had worked for 34 years doing essentially full-time clerical-type job, and I think you can look at different clerical activities, but I think we all have a pretty good idea what secretaries and clerks do.

Q: But you don't know specifically what Ms. Wells did, do you?

A: Correct. I have never watched videotapes of her for 34 years.

Q: And you've never observed her at work?

A: No.

Q: And you've never seen a video of her at work?

A: No.

Q: And you've never observed a demurrage clerk at work for the Illinois Central?

A: No.

Q: And you've never reviewed and studies reporting a demurrage clerk's job duties as a specific cause of carpal tunnel syndrome, have you?

A: I don't think they exist.

After taking her history, Dr. Haueisen stated, he performed a physical examination consisting of several tests intended to gauge the severity of her symptoms. Based on the results, Dr. Haueisen diagnosed Wells as having mild bilateral carpal tunnel syndrome and mild to moderate bilateral cubital tunnel syndrome. Dr. Haueisen testified that both carpal and cubital tunnel syndrome can be caused by work activities, typically those that involve force, repetition, awkward positions, and exposure to vibrations. However, Dr. Haueisen acknowledged that there are numerous possible other causes for these conditions, including diabetes, thyroid disease, rheumatoid arthritis, and age, especially in women over the age of fifty. With respect to Wells specifically, Dr. Haueisen opined to a reasonable degree of medical certainty that, "given her long work history of 34 years doing these clerical-types of jobs. . . there was likely then some contribution from those jobs to the development of these syndromes." Dr. Haueisen testified that, in 2005, he performed surgery on Wells' hands and wrists to address her condition.

The parties also took the deposition of Tyler Kress, Ph.D. ("Dr. Kress"), Wells' expert in the field of ergonomics² and biomechanics. Dr. Kress has expertise in workplace prevention of cumulative trauma injuries such as cubital tunnel syndrome and carpal tunnel syndrome. Dr. Kress apparently testified about ICRR's failure to use ordinary care to provide Wells with reasonably safe working conditions, as related to her cubital and carpal tunnel syndrome.³

In March 2010, ICRR filed several motions in limine, including two seeking to exclude from evidence the testimony of Dr. Kress and Dr. Haueisen concerning any causal link between Wells' injuries and her work duties or workplace environment. The trial court scheduled a hearing in late March 2010 on all of the motions in limine, including ICRR's motion to exclude the testimony of Drs. Kress and Haueisen.

At the hearing, the trial judge indicated that he had read the depositions of Dr. Kress and Dr. Haueisen, and considered them in light of Wells' testimony about her job duties and work conditions, and the parties' arguments. As to Dr. Kress, the trial court expressed concern that his opinion was based on generalities about the type of workplace activities and settings that can cause carpal and cubital tunnel syndrome, rather than expressing an opinion based on Wells' specific work conditions. The trial judge acknowledged the difficulty presented to Wells by the fact that her longtime workstation at ICRR no longer existed, but noted that Dr. Kress nevertheless could have acquired more specific factual knowledge about Wells' work conditions through other means, such as detailed discussions with Wells. For this reason, the trial court indicated that Dr. Kress's testimony could not reasonably be expected to assist the jury, so he granted ICRR's motion to exclude his testimony.

The trial judge also indicated that he had "thoroughly" read the deposition of Dr. Haueisen. The trial court expressed concern that Dr. Haueisen reached his conclusion on the cause of Wells' condition based only on a general understanding of "clerical type jobs" and "clerical activities," rather than basing it on specific information about Wells' job duties and activities. It noted that Dr. Haueisen had no factual information and had taken no measures to exclude other possible causes for Wells' condition. The trial court found that Dr. Haueisen did not have a sufficient underlying factual basis to give an opinion on causation, and so excluded his testimony on that issue.

²Ergonomics is defined as "the applied science of equipment design intended to reduce operator fatigue and discomfort." *Webster's II New Riverside Dictionary* 234 (Revised ed. 1996).

³Dr. Kress's deposition is not included in the appellate record, so we gather the gist of his testimony from the interrogatory responses, pleadings, and transcripts of motion hearings.

After the trial court issued its oral ruling excluding the testimony of Drs. Kress and Haueisen, ICRR orally renewed its motion for summary judgment, citing Wells' lack of expert evidence on causation. The trial court noted that Wells was left with no "expert testimony . . . as to whether or not this was a reasonably safe workplace, [and] as to whether or not the work that [Wells] did caused the cubital tunnel and carpal tunnel" syndrome. On this basis, the trial court orally granted ICRR's summary judgment motion.

On April 4, 2010, the trial court issued three separate written orders, granting ICRR's motions to exclude certain testimony of Dr. Haueisen and Dr. Kress, and granting summary judgment in favor of ICRR. The written orders detailed the trial court's reasoning for excluding the expert testimony of Drs. Haueisen and Kress.

In the written order on Dr. Haueisen, the trial court found that his causation opinion was "unreliable, lack[ing] any indicia of trustworthiness, and will not assist the trier of fact" because: 1) it was not based upon any underlying factual foundation; 2) his methodology was not consistent with methodology generally accepted in orthopedic medicine and hand surgery; 3) there was a glaring analytical gap between his knowledge of the underlying facts of the case and his causation opinion; and 4) he lacked formal training in ergonomics or engineering that would give him the expertise to opine on workplace conditions encountered by Wells in her workplace that would cause her cubital and carpal tunnel syndrome. The order went into particular detail on the reasons for the trial court's conclusion that there was "a glaring analytical gap" between Dr. Haueisen's knowledge of the facts and his causation opinion:

- a. the only data upon which [Dr. Haueisen] relies to form his opinion is a brief work history given by Wells, which he admits was not detailed;
- b. he does not know what Wells' job duties were, and has never observed her performing those duties;
- c. he has never observed any other person performing the duties of a demurrage clerk;
- d. he does not know the physical stresses or [actual force] involved in the work of a demurrage clerk or of Wells' work, and has made no actual findings regarding those physical stresses or [actual force];
- e. he does not know Wells' activities outside of work that might cause or contribute to bilateral carpal tunnel syndrome or cubital tunnel syndrome, and has not performed any differential diagnosis or analysis to determine whether any non-occupational activities could have caused or contributed to her [injuries];

- f. he did not review any medical records from any of Wells' other treating physicians to determine whether Wells suffered from any other risk factors (e.g. medical, genetic, etc.) that may have caused or contributed to her [injuries].
- g. he has cited no medical studies, scientific studies, or other peerreviewed literature that support his causation opinion.

On this basis, the trial court held that Dr. Haueisen could testify on his treatment of Wells, but excluded any expert testimony by Dr. Haueisen concerning causation, specifically that Wells' bilateral carpel tunnel and cubital tunnel syndromes are related to her work at ICRR.

In the written order on Dr. Kress, the trial court found that his testimony was unreliable, lacked any indicia of trustworthiness, and would not assist the trier of fact. As the basis for these conclusions, the order listed the following reasons: 1) Dr. Kress's opinion that ICRR failed to provide Wells a reasonably safe workplace was not based on any underlying factual foundation; 2) Dr. Kress's admission that he did not know the facts of the case or the specifics of Wells's workplace and his comments that "the evidence is what it is" and "will pan out as well as it can based on discovery"; 3) Dr. Kress's methodology was inconsistent with the methodology generally accepted within his fields of expertise, namely ergonomics and engineering; and 4) there was a "glaring analytical gap" between Dr. Kress's knowledge of the facts in this case and his opinions. As with the order on Dr. Haueisen, the order on Dr. Kress gave particular detail on the reasons for finding a "glaring analytical gap" between Dr. Kress's knowledge and his opinions:

- a. [Dr. Kress's] failure to perform any calculations, measurement of forces, motion studies, or work sampling;
- b. his failure to cite any dose-response data or minimum threshold levels related to "risk factors" for developing carpal tunnel and cubital tunnel syndrome;
- c. his failure to apply replicable analysis;
- d. his failure to inspect Wells' former work site and reliance on a brief, non-specific conversation with Wells regarding her worksite and work duties;
- e. his failure to inspect any of the tools Wells used in her employment;
- f. his failure to observe what a demurrage clerk/supervisor does in his or her work;
- g. his failure to fully explore Wells' alleged exposure to occupational "ergonomic risk factors" in forming his opinions;

- h. his failure to fully explore Wells' exposure to "non-occupational risk factors" in forming his opinions;
- i. his admission that he does not know specific facts regarding Wells' employment duties and work station other than mere generalities;
- j. His failure to cite any peer-reviewed medical, scientific or epidemiological studies tying the specific exposures in this case to the specific conditions or diseases at issues, and the gap between the studies on which he purportedly relies and plaintiff's job, conditions and/or diseases it too great.

The order prohibited Dr. Kress from testifying in this case.

In the third order, on ICRR's motion for summary judgment, the trial court granted summary judgment in favor of ICRR, finding that Wells could produce no evidence that ICRR failed to provide her with a reasonably safe place to work or that Wells' carpal tunnel and cubital tunnel syndromes are related to her work at ICRR. From these three orders, Wells now appeals.

ISSUES ON APPEAL AND STANDARD OF REVIEW

On appeal, Wells argues that the trial court erred in granting ICRR's motion to exclude the testimony of Dr. Kress and Dr. Haueisen.⁴

Questions regarding the admissibility, qualification, relevancy, and competency of expert testimony are reviewed under an abuse of discretion standard. *McDaniel v. CSX Transp. Inc*, 955 S.W.2d 257, 263-64 (Tenn. 1997). A trial court abuses its discretion if it applies an incorrect legal standard or reaches an illogical or unreasonable decision which causes an injustice to the complaining party. *Brown v. Crown Equip. Corp.*, 181 S.W.3d 268, 273 (Tenn. 2005). Under the abuse of discretion standard, an appellate court is not permitted to substitute its own judgment for that of the trial court and will not interfere with the lower court's exercise of discretion without a clear showing of abuse. *Williams v. Baptist Mem'l Hosp.*, 193 S.W.3d 545, 551 (Tenn. 2006); *State v. Carruthers*, 35 S.W.3d 516, 553 (Tenn.

⁴We note that although Wells appealed all three of the trial court's orders, including the order granting summary judgment to ICRR, the issues listed in Wells' appellate brief do not state that Wells is appealing the trial court's grant of summary judgment in favor of ICRR. It is arguable that we need not address the trial court's ruling on the motions in limine if the order granting summary judgment to ICRR became final and was not appealed. However, as the grant of summary judgment was premised on the absence of expert testimony to support Wells' claims, we go on to address the trial court's exclusion of this evidence.

2000). The decision of the trial court "will be upheld so long as reasonable minds can disagree as to the propriety of the [trial court's] decision." *State v. Scott*, 33 S.W.3d 746, 752 (Tenn. 2000).

ANALYSIS

Dr. Kress

Wells argues first that the trial court erred in granting ICRR's motion in limine to exclude the testimony of her ergonomics expert, Dr. Kress. Wells stresses that, in arriving at his conclusions, Dr. Kress relied on authoritative materials such as publications by the National Institute of Occupational Safety and Health, the Centers for Disease Control, the Federal Railroad Administration, and other governmental and private entities. Wells notes that any failure by Dr. Kress to fully explore Wells' exposure to both occupational and non-occupational risk factors are pertinent to the weight of his testimony and can be the subject of questions on cross-examination, but are not a basis for excluding his testimony altogether. Wells notes that it would be impossible for Dr. Kress to visually inspect Wells' work station at ICRR because ICRR has destroyed the building in which Wells worked and replaced it with a new building. Given Dr. Kress's recognized credentials, his review of pertinent authoritative publications, and his conversation with Wells about her workplace prior to his deposition, Wells argues that the trial court abused its discretion in excluding Dr. Kress's testimony from trial.

As noted by ICRR in its appellate brief, the appellate record in this cause does not include the deposition testimony of Dr. Kress.⁵ "This Court's review is limited to the appellate record and it is incumbent upon the appellant to provide a record that is adequate." *Chiozza v. Chiozza*, 315 S.W.3d 482, 489 (Tenn. Ct. App. 2009) (per. app. denied, May 20, 2010) (citing *Jennings v. Sewell-Allen Piggly Wiggly*, 173 S.W.3d 710, 713 (Tenn. 2005)). The appellant has a duty to prepare an appellate record that conveys an accurate and complete account of the trial court proceedings regarding the issues that are the basis of the appeal. *Flack v. McKinney*, No. W2009-02671-COA-R3-CV, 2011 WL 2650675, at *2 (Tenn. Ct. App. July 6, 2011) (citing *In re M.L.D.*, 182 S.W.3d 890, 894 (Tenn. Ct. App. 2005)). This Court's authority to review a trial court's decision is limited to issues for which it is provided an adequate appellate record. *Am. Gen. Fin. Servs., Inc. v. Goss*, No. E2010-01710-COA-R3-CV, 2011 WL 1326234, at *2 (Tenn. Ct. App. Apr. 7, 2011) (citations omitted). "Absent

⁵The record does contain two pages of the Kress deposition transcript attached as Exhibit C in one of ICRR's many motions in limine filed March 17, 2010 entitled "Defendant's Motion in Limine to Exclude Evidence or Reference to Photographs Depicting Plaintiff's Workplace Not Produced or Disclosed" and brief excerpts orally quoted by the trial court in the March 24, 2010 hearing.

the necessary relevant material in the record an appellate court cannot consider the merits of an issue." *Flack*, 2011 WL 2650675, at *3 (quoting *State v. Ballard*, 855 S.W.2d 557, 561 (Tenn. 1993)). The appellate court is precluded from addressing an issue on appeal when the appellate record does not include relevant documents. *Chiozza*, 315 S.W.3d at 492 (citation omitted). The failure of the appellant to ensure that documents necessary to consider a particular issue raised on appeal are included in the appellate record constitutes an effective waiver of the appellant's right to appeal that issue. *Id*.

Here, the transcript of the trial court's hearing on the motions *in limine* indicates that the trial judge carefully reviewed Dr. Kress's deposition testimony before deciding to exclude it from the evidence presented at trial. On appeal, this Court has not been provided the deposition testimony so carefully reviewed by the trial court, which is obviously essential to any meaningful review of the trial court's decision. Under the circumstances, we must deem this an effective waiver of this issue on appeal.

Dr. Haueisen

Wells also argues that the trial court erred in excluding Dr. Haueisen's testimony on causation. Wells emphasizes that, under FELA, she is required only to establish that the injury resulted in whole or in part from the defendant railroad's negligence, citing 45 U.S.C. § 51. Therefore, Wells argues, to the extent that the trial court excluded Dr. Haueisen's testimony because he failed to exclude non-occupational activities that could have caused or contributed to Wells' condition, this was error. Wells also contends that, because Dr. Haueisen is not an ergonomist, he was not required to do a site inspection of Wells' work station, but was only required to provide his medical opinion based on the history provided to him by his patient. For these reasons, Wells insists that the trial court erred in excluding Dr. Haueisen's testimony on causation.

In response, ICRR argues that the trial court properly excluded Dr. Haueisen's testimony because it was speculative and based on mere possibility, rather than a reasonable degree of medical certainty. ICRR contends that a physician's ability to diagnose a medical condition is not the same as the ability to deduce, in scientifically reliable manner, the cause of the medical condition. ICRR reiterates that Dr. Haueisen had not reviewed any of Wells' medical history, had not discussed the case with Wells' other doctors, had not reviewed her deposition testimony, and only had a "nonspecific and superficial" knowledge of Wells' work duties. Additionally, ICRR contends that Dr. Hauseisen provided no meaningful analysis or documented efforts to "rule in" or "rule out" other potential causes of Wells' condition. For these reasons, ICRR insists that the trial court did not abuse its discretion in excluding Dr. Haueisen's testimony with respect to causation.

In *McDaniel v. CSX Transp.*, *Inc.*, the Court explained the trial judge's important role as gatekeeper:

This gatekeeping role is simply to guard the jury from considering as proof pure speculation presented in the guise of legitimate scientifically-based expert opinion. It is not intended to turn judges into jurors or surrogate scientists. Thus, the gatekeeping responsibility of the trial courts is not to weigh or choose between conflicting scientific opinions, or to analyze and study the science in question in order to reach its own scientific conclusions from the material in the field. Rather, it is to assure that expert's opinions are based on relevant scientific methods, processes, and data, and not on mere speculation, and that they apply to the facts in issue.

McDaniel, 955 S.W.2d at 263 (Tenn. 1997) (quoting *Joiner v. Gen. Elec. Co.*, 78 F.3d 524, 530 (11th Cir. 1996), *cert. granted*, 117 S. Ct. 1243 (1997)).

The gatekeeping function of the trial court was further explored in *Brown v. Crown Equip. Corp.*, 181 S.W.3d 268 (Tenn. 2005). The Court in *Brown* noted that the "objective" of the gatekeeping function is "to ensure that 'an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Id.* at 275 (quoting *Kumbo Tire Co. v Carmichael*, 526 U.S. 137, 152 (1999)). The *Brown* Court emphasized that, once admitted, the testimony of the expert "will be subject to vigorous cross-examination and countervailing proof" and that "the resolution of legitimate but competing expert opinions are matters entrusted to the trier of fact." *Brown*, 181 S.W.3d at 275 (citations omitted). Based on these considerations, the Court in *Brown* determined that the trial court had abused its discretion in excluding the testimony of the plaintiff's proffered experts. *Id.* at 281.

Subsequent Tennessee Supreme Court decisions applying *Brown* have likewise emphasized that an expert's testimony will be subjected to forceful cross-examination, indicating that trial courts should be reluctant to exclude the testimony of an expert because of his or her opinion. For example, in *State v Scott*, 275 S.W.3d 395 (Tenn. 2009), the Court noted that the trial court's role as gatekeeper "is not unconstrained" and stated that a party proffering the testimony of an expert "need not establish that the expert testimony is correct, only that the expert testimony 'rests upon 'good grounds.' '" *Id.* at 404 (citations omitted). *See also Shipley v Williams*, 350 S.W.3d 527, 559-60 (Tenn. 2011).

We review the trial court's exclusion of Dr. Haueisen's testimony through this prism. The trial court's decision recited a number of bases for the decision. The gist of the reasons for

exclusion seem to revolve around 3 considerations: (1) Dr. Haueisen's lack of training in ergonomics or engineering; (2) his failure to perform a differential diagnosis or analyze whether Wells' condition could be caused by non-occupational activities; and (3) his lack of sufficient knowledge of Wells' work and non-work activities. We address these in turn.

First, we agree with Wells that Dr. Haueisen is not required to be an ergonomist in order to testify that Wells' condition is caused, in whole or in part, by her work activities or conditions. Dr. Haueisen may not be able to address whether ICRR was negligent in how Wells' work station was set up or in its assignment of job duties to her, but he need not have ergonomics or engineering training to give an expert medical opinion that activities that are repetitive, such as typing, can cause Wells' condition.⁷

Second, we agree with Wells that the FELA does not require Wells to prove that her work activities or conditions were the sole cause of her condition, or even the primary cause. She need only establish that her injury "result[ed] in whole or in part from the negligence of [the railroad]." *May v Ill. Cent. R.R. Co.*, W2010-01272-COA-R9-CV, 2011 WL 2361278 at *4 (Tenn. Ct. App. June 9, 2011) (referencing 45 U.S.C.A.§ 51). Thus, under the FELA standard, so long as Dr. Haueisen has a reasonable basis for testifying that Wells' performance of her job duties for ICRR were at least a partial cause of her condition, his failure to exclude non-occupational activities is fodder for cross-examination, but not a sufficient basis for excluding his testimony altogether.

The main reason for the trial court's decision to exclude Dr. Haueisen's testimony appears to be his lack of knowledge about the specific activities in which Wells engaged in her job at ICRR. Indeed, after reviewing Dr. Haueisen's deposition at length, we find that the trial court's characterization of Dr. Haueisen's testimony as based only on a general understanding of Wells' clerical duties is accurate. In his deposition, Dr. Haueisen indicated that he knew only that Wells' job duties included typing, writing and telephone work, that she worked eight hours a day, five days a week, and that typing worsened her symptoms. Asked to elaborate, Dr. Haueisen resorted to generalizations such as "I think we all have a pretty good idea of what secretaries and clerks do."

⁶ The basis for the trial court's finding that Dr. Haueisen's methodology was not consistent with methodology generally accepted in orthopedic medicine and hand surgery is not fully explained, but it appears from the hearing transcript that this reason for exclusion may have been based on Dr. Haueisen's failure to perform a differential diagnosis to rule out other potential causes of Wells' injuries. This factor is addressed in the body of this Opinion.

⁷We note that, on cross-examination, Dr. Haueisen conceded that some studies indicate that repetitive stress does not cause carpal tunnel syndrome.

The trial court felt that Dr. Haueisen's understanding of Wells' work activities was not sufficient to allow his opinion on causation to be presented to the jury. We agree that the basis for Dr. Haueisen's opinion may fairly be characterized as thin. However, we are mindful of the admonition in *Brown* and its progeny that Dr. Haueisen's lack of detailed knowledge may be exploited at length in cross-examination. We must conclude that Dr. Haueisen expressed sufficient factual knowledge to opine that Wells' work activities contributed in whole or in part to her condition, and that the trial court erred in excluding his testimony from trial. Therefore, the trial court's order granting ICRR's motion *in limine* to exclude Dr. Haueisen's testimony on causation must be reversed.

CONCLUSION

The decision of the trial court is affirmed in part and reversed in part as set forth in this Opinion, and the cause is remanded for further proceedings consistent with this Opinion. Costs on appeal are equally assessed, one-half to Appellee Illinois Central Railroad Company, and one-half to Appellant Carolyn Wells and her surety, for which execution may issue, if necessary.

HOLLY M. KIRBY, JUDGE